Reclamation Cost Estimate Redd Block Mine



Prepared by
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APPROVED
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DIV. OIL GAS & MINING



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1.0 Introduction

The Redd Block Reclamation cost estimate utilizes reference materials including Mine Maps, 2014 RS Means, and the UDOGM reclamation cost for 9 acres of disturbance. A number of the smaller tasks were estimated on a lump sum basis based on quotes from local contractors or the company's experience on similar sites.

This reclamation cost estimate is designed to quantify the reclamation liability for the Redd Block Mine

2.0 Reclamation Tasks

The reclamation tasks at the Redd Block Mine include demolition of a concrete pad, abandoning 9 monitoring wells, and reclaiming 9 acres of disturbance. Mobilization and demobilization has been determined to have no cost since the Redd Block Mine is with 50 Miles of Moab, which is the closest Wheeler Cat location.

2.1 Project Indirect Costs

The project's indirect costs factors are provided by the Division of Oil, Gas and Mining. These factors were used to calculate the Contingency, Engineering Redesign, Main Office Expense, and project Management Fee. Details of the project indirect costs are shown on the Summary worksheet.

3.0 Summary

Energy Fuels estimates the reclamation cost (in \$2020) for the combined Redd Block Mine is:

•	Demolition of the Concrete Pad –	\$2,218
•	Well Abandonment -	\$10,848
•	Disturbed Land Reclamation -	\$55,800
•	Project Indirect Costs –	\$13,600
•	Total –	\$83,000

A detailed description and reclamation cost estimate is provided in the following attachments.

Redd Block Mine
Reclamation Cost Workbook

Redd Block IV Bonding Calculations 2015

Direct Costs

Task 1: Abandon Existing Wells Task 2: Demolition of Concrete Pad Task 3: Disturbed Land Reclamation Subtotal Direct Costs Indirect Costs	\$10,848 \$2,218 \$55,800 \$68,866	
Mob/Demob Contingency Engineering Redesign Main Office Expense Project Management Fee Subtotal	\$0 \$3,443 \$1,722 \$4,683 \$1,722 \$11,569	0.0% 5.0% 2.5% 6.8% 2.5% 16.8%
Total Cost 2015	\$80,435	
Escalation (0.5% every year for 5 years)	\$2,031	
Reclamation Cost Escalated to 2020	\$82,466	
Bond Amount (rounded to nearest \$1,000)	\$83,000	

Description: Support calculations for the reclamation cost estimate for the Redd Block IV Mine

Task 1: Abandon Existing Wells

Assumptions

The existing wells have already been completed. Reclamation will consist of removing protective surface shroud, fill the well with a bentonite material and placing a surface concrete plug, to 3 feet below surface.

A cost estimate for labor and materials was provided by Bayles Exploration Inc. out of Blanding Utah.

The 9 wells consist of 3@ 2" PVC to a depth of 100', 3@ 4" PVC to a depth of 300', and 3@ 4" steel to a depth of 1000'.

<u>Item</u>	Quantity	Cost		
Materials	N/A	\$	7,028	
Equipment and Labor	N/A	\$ 3,8		
	Total	\$	10,848	

Task 2: Demolition of Concrete Pad

Assumptions

Concrete pads will be broken into manageable pieces and placed within the Development Rock Area prior to final grading. RS Means reference 02 41 13 17 5300 was used to estimate the costs. \$19.80 per square yard.

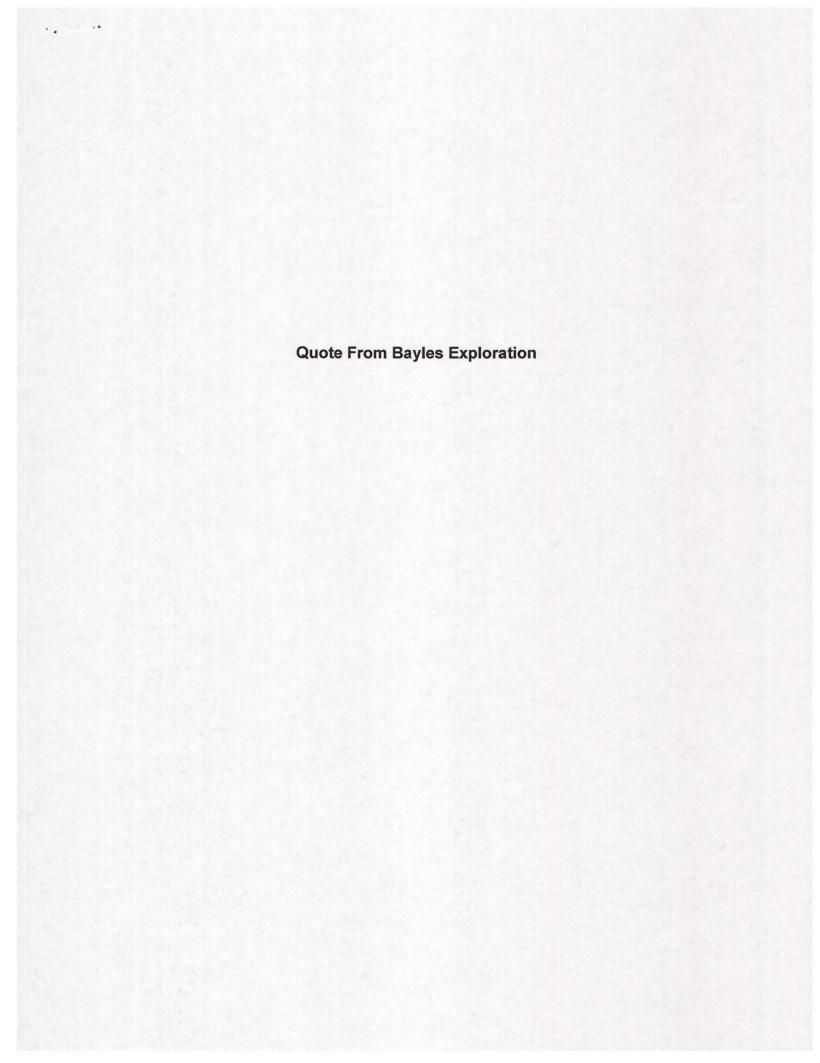
<u>Item</u>	Quantity (sf)	Quantity (sy)	RS Means Reference	Unit Cost	
Existing Pad (24' x 42')	1,008	112	02 41 13 17 5300	\$	19.80
			Total	\$	2,217.60

Task 3: Disturbed Land Reclamation

Assumptions

The costs to reclaim the disturbed area of the Redd Block IV Mine are estimated by using UDOGM's SMO with No Openings workbook. The 5 year escalated value was used for the cost per acre reclaimed.

<u>Item</u>	Quantity	Reference	Unit Cost
First 6 acres Existing Disturbed Area	1	UDOGM	\$ 38,100.00
Additional acres (3 acres)	3	UDOGM	\$ 5,900.00
		Total	\$ 55,800.00



BAYLES EXPLORATION INC

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FAX

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#: Cellis Dependent tuels . Compages:
#: <u>Cellis Depergyfuels & Com</u> Pages: 1 Phone: 303 - 974 - 2151 Lakewood, CO
RE:CC:
COMMENTS: Scope of Work:
Abardon wells othe Redblock Mine:
3 wells w 2" PVC to 100' each
3 wells w/4" PVC to 300' each
3 wells w/4" Steel to 1000'each
27.70
Moterials - \$ 7028.00 Equipment + Labor - \$ 3880.00
Capital France
Total project = \$ 10,848.00
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